THE EFFECT OF YOGA THERAPY VERSUS MUSIC THERAPY ON PAIN AMONG PATIENTS WITH CANCER IN SELECTED HOSPITAL AT TRICHY

Dissertation Submitted To

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY
CHENNAI

IN PARTIAL FULFILMENT OF REQUIREMENT
FOR THE AWARD OF DEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL 2014

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_____ _____

INTERNAL EXAMINER **EXTERNAL EXAMINER**

DECLARATION

I, **301211705** hereby declare that this dissertation entitled **"A STUDY TO COMPARE THE EFFECTIVENESS OF YOGA THERAPY VERSES MUSIC THERAPY ON PAIN AMONG PATIENTS WITH CANCER IN SELECTED HOSPITAL AT TRICHY"** has been prepared by me under the guidance and direct supervision of **Prof. R.Punithavathi. M.Sc. (N).** Professor cum Principal, Thanthai Roever College of Nursing, Perambalur, as a requirement for partial fulfilment of M.Sc. Nursing degree course under **The Tamilnadu Dr. M.G.R. Medical University, Chennai – 32.** This dissertation had not been previously formed and this will not be used in future for award of any other degree/ diploma. This dissertation represents independent original work on the part of the candidate.

Place: Perambalur
Date: April - 2014

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A STUDY TO COMPARE THE EFFECTIVENESS OF YOGA THERAPY VERSUS MUSIC THERAPY ON PAIN AMONG PATIENTS WITH CANCER IN SELECTED HOSPITAL AT TRICHY

ABSTRACT

The pain in patients with cancer may be caused by direct tumor involvement diagnostic or therapeutic procedure or side effects of medications or toxicities of cancer treatment. No matter its source uncontrolled pain can affect every aspect of a person's quality of life. The aim of the study was to compare the effectiveness of yoga therapy versus music therapy on pain among cancer patients. The research design used in the study was true experimental design; True experimental, pre-test post-test Design. Data collection was done by screening the cancer patients who had pain. 30 subjects were in experimental group I and 30 subjects were in experimental group II, they were selected by using simple random sampling technique. The tool adopted and used for the data collection was numerical pain rating scale. Interview method used to collect the data. . In experimental group I pre- test mean pain score was 4.23 and in experimental group II, the mean pain score was7.43, the calculate 't' value 2.693 was significant at $p<0.001$. The association of level of pain among cancer patients the significance was in the region that is affected the pelvic region in experimental group I and area of residence significant in the experimental group II. The outcome of the study it was evident that the yoga therapy was effective than the music therapy in reducing pain among the patients with cancer.

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CHAPTER I

INTRODUCTION

‘The quality of life is more important than life itself’.

Alexis Carrel.

Pain is universal, but cancer pain is particularly vicious. Patients with cancer have a specific behavior due to the presence of severe pain because of the disease and the fear of facing pain in the form of treatments or intensity of the progression of disease. The agony of pain is transmitted without words since this pain has the ability to alter a person’s life plans, body image, family / social role and financial status.

The pain in patients with cancer may be caused by direct tumor involvement, diagnostic or therapeutic, procedures, side effects, toxicities of cancer treatment. No matter what the source, uncontrolled pain can affect every aspect of a patient’s quality of life, causing suffering, interference with sleep and reduced physical and social activity and appetite. Though specialist care teams are available for treating cancer pain and anxiety the deaths due to cancer pain are alarmingly at 28%. Approximately 30-50% of all patients with cancer experience pain, and of them, 75-90% experience substantial life – altering cancer pain.

Pain is the most prevalent symptom faced by patient with cancer. Cancer pain has a multidimensional phenomenon, having variety of reason and significant problem for the patient, and the care takers. Pain is found to be an important predictor of quality of life and the limitations of physical performance and adjustments. Fear of unrelieved pain is a concern for individuals with cancer, their family and friends.

Uncontrolled pain has been recognized as an important contributing factor to suicide in patients with cancer. Persistent pain and the experience of depression and are most common reasons for request of euthanasia or physician assisted suicide. Clinicians and nurses in the oncology settings are confronted with these issues. Healthcare providers must adopt and prioritize pain as the “fifth vital sign” and standardize pain assessment throughout their workplaces.

World Health Organization’s pain ladder management is currently the most accepted and widely employed pain management strategy in patients with cancer pain. Despite their well-known adverse effects ranging from local to general in bodily distribution, opioids are still the most recommended drug therapy of choices for patients with cancer pain.

Yoga is an ancient science which has stood the test of time in terms of scientific investigation. There is a growing evidence that the ancient practice of yoga is good for patients with cancer, even during treatment. The yoga programes are a little more gentle and that patients with cancer feel that they are capable of doing those movements. Studies on breast cancer survivors have shown that yoga may improve flexibility and arm function after surgery along with improvements in body image and self esteem, reduced fatigue and pain control.

The healing power of music has been recognized since ancient times. The use of music has been documented in diverse cultures world wide for ailments ranging from pain and cancer depression and stress disorder.

BACKGROUND OF THE STUDY

The global burden of cancer continues to increase largely because of cancer causing behaviors, particularly smoking in economically developing

countries. Based on the GLOBOCAN2008 estimates about 12.7 million cancer cases and 7.6 million deaths are estimated to have occurred in 2010; of these 56% of the cases and64% of the deaths occurred in the economically developing world.

Each year on 4th February, WHO and International Agency for research on Cancer supports Union for International Cancer Control to promote ways to ease the global burden of cancer. International Association for study of cancer pain had announced October 2008- October 2009 as the global year of cancer pain.

Cancer survivor's experience a wide range of symptoms during and following completion of treatment and some of these symptoms may persist for years or even decades. People with pain receive care in various ways, including assistance with self management, primary care specialty care and pain clinics, among others. Treatment can include medications, surgery, behavioral interventions, psychological counseling, rehabilitative and physical therapy. For many people, however, pain prevention, assessment and treatment are inadequate. While pharmacologic treatments relieve many symptoms, they too may produce difficult side effects.

Professionals and postgraduate cancer care curricula for nurses and other healthcare providers must include didactic information and clinical experiences related to cancer pain and its management. Oncology nurses have a professional obligation to ensure that institutional and clinical standards for cancer pain management are adopted. Oncology nurses must adopt pain management as a priority in continuous quality improvement initiatives. (Cancer pain management).

NEED FOR THE STUDY

Cancer pain prevention and treatment are essential elements of quality cancer care throughout all phases of the cancer care continuum. All people with cancer have a right to optimal pain relief that includes culturally relevant and sensitive pain education, assessment, and pain management. The public, people with cancer, and significant others must be educated about the right to safe and effective cancer pain management. All professionals caring for patients with cancer have an ethical responsibility to acquire and use current knowledge and skills and implement evidence- based pain management guidelines.

Pain represents a national challenge. A cultural transformation is necessary to prevent, assess, treat, and understand pain of all types. Government agencies, healthcare professional, associations, educators, and public and private funders of health care, should take the lead in this transformation. Patient advocacy groups also should engage their diverse constituencies.

The public and healthcare professionals have become increasingly aware and accepting of the benefit in physical, psychological, social, and spiritual support for patients with cancer pain. Patients with cancer pain often seek non-pharmacologic interventions to complement conventional care and decrease the pain associated with cancer and its treatment. Most often referred as complementary and alternative medicine (CAM), these supportive therapies consist of a heterogeneous group of modalities used as adjuncts to allopathic health care. Biofield therapies are CAM modalities that involve the direction of healing energy through the hands to facilitate well-being by modifying the energy field of the body. Several studies of CAM modalities have demonstrated its clinical efficacy.

Complementary therapies are non invasive, inexpensive, and useful in controlling symptoms and improving quality of life, and they may be assessed by patients themselves. Regress scientific research has produced evidence that yoga therapy reduce physical and emotional symptoms that the therapy provide a favorable risk benefit that permits cancer survivors to help and manage their own care. (Hematol oncol clin North Am 2008 Apr Villi, Zinks)

The investigator during her postings in her clinical area, had seen that the patient's with cancer suffering from various causes of the disease and pain had been the main symptom that they suffer often. She realized that the nurses are in prime position to assess the level of pain among patients with cancer to assist them to identify high risk periods and to integrate pain management programe that could prevent the negative consequences of the pain on health. Relaxation of body and mind has the ability to promote the quality of life in the level of pain among the cancer patients With this perception the investigator has chosen to assist in the reduction of pain level among the patients with cancer by the use of yoga and music.

STATEMENT OF THE PROBLEM

"A study to compare the effectiveness of yoga therapy versus music therapy on pain among patients with cancer in selected hospital at Trichy".

OBJECTIVES OF THE STUDY

1. To assess the level of pain among the patients with cancer receiving yoga therapy.
2. To assess the level of pain among the patients with cancer receiving music therapy.

3. To assess the effectiveness of yoga therapy in reducing pain among patients with cancer.

4. To assess the effectiveness of music therapy in reducing pain among patients with cancer.

5. To compare the effectiveness of yoga therapy versus music therapy in reducing pain among cancer patients.

6. To associate post- test level of pain among the patients with cancer receiving yoga therapy with their demographic variables.

7. To associate post- test level of pain among the patients with cancer receiving music therapy with their demographic variables.

HYPOTHESIS

- **H_1** There will be significant reduction in the level of pain among patients with cancer receiving yoga therapy.

- **H_2** There will be significant reduction in the level of pain among patients with cancer receiving Music therapy.

- **H_3** Yoga therapy will be more effective than music therapy on reduction of pain among patients with cancer.

- **H_4** There will be significant association between post-test level of pain among patients with cancer receiving yoga therapy and their selected demographic variables.

- **H_5** There will be significant association between post-test level of pain among patients with cancer receiving music therapy and their selected demographic variables.

OPERATIONAL DEFINITIONS

Effectiveness

In this study effectiveness refers to the outcome of the yoga therapy on reducing pain among cancer patients.

Yoga Therapy

In this study yoga therapy refers to the union of body and mind by simple exercises of muscle relaxation (sugasana), breath control (pranayama), and holding specific body postures (vajrasana), and re-energization (yoganidhra), are the part of hath yoga used for 30 minutes.

Music Therapy

In this study music therapy refers to the plain audio recorded veena instrumental music for 15 minutes.

Pain

In this study pain refers to the unpleasant body sensation expressed by the patients with cancer and it is measured by the numerical pain scale

ASSUMPTIONS

- Patients with cancer experience pain.
- Pain produces disturbance in the quality of life.
- Yoga therapy reduces pain among patients with cancer.
- Music therapy reduces pain among patients with cancer.
- Yoga is better than music for cancer related pain.

DELIMITATIONS

- The benefit of yoga and music therapy are depend on the interest of the subjects
- This study is delimited for 60 patients only.
- This study is delimited for 4 weeks of duration.

PROJECTED OUT COME

The finding of the study will reveal the effectiveness of yoga and music therapy to reduce the level of pain among patients with cancer. If this study found to be effective this intervention could be incorporated as one of the interventions in reducing the level of pain among patients with cancer.

CHAPTER II

REVIEW OF LITERATURE

The review of literature refers to an extensive, exhaustive and systemic examination of publications relevant to the research project. Review of literature is a critical examination of publications related to a topic of interest. Thorough literature review provides a foundation on which to base new knowledge and usually conducted well before the data to be collected.The review of literature is organized under the following section:-

Part:-1 Literatures related to the study.

Section A Studies related to Yoga therapy for cancer pain.

Section B Studies related to Music therapy for cancer pain.

Section C Studies related to Yoga and Music therapy for cancer pain.

Part:-2 Conceptual frame work.

PART:-1

LITERATURES RELATED TO THE STUDY

A number of Yoga interventions have been studied for the use of patients with cancer primarily in measuring the outcomes relating to pain control, anxiety reduction, and enhancing quality of life. This chapter defines the scope and characteristics of Yoga interventions, followed by a selective review of research indicating their appropriate use or cautions in cancer care. Yoga interventions includes relaxation, meditation, yoga, and creative

therapies. Current evidence supports the efficacy of hath yoga therapy relaxation for control of pain and anxiety during cancer treatments. Yoga Therapy is supported for reduction in pain and improves the quality of life among patients with cancer pain.

Section A Studies related to Yoga therapy for cancer pain

DiStasio SA. (2008) Yoga classes in the United States generally consist of asanas (postures), which are designed to exercise every muscle, nerve, and gland in the body. The postures are combined with pranayama, or rhythmic control of the breath. As a complementary therapy, yoga integrates awareness of breath, relaxation, exercise, and social support--elements that are key to enhancing quality of life in patients with cancer. The purpose of this article is to familiarize nurses with yoga as a complementary therapy.

Ando M, Morita T, Akechi T, et al., (2009) Mindfulness-based yoga therapy was effective for anxiety and depression in Japanese cancer patients, and spiritual well-being is related to anxiety and depression, growth, and pain. The negative correlation of spirituality with growth differs from the results of previous studies and the mechanism of this effect needs to be investigated further.

Carson J.W., Carson K.M., Porter L.S. et al.,(2009) Breast cancer survivors have limited options for the treatment of pain, anxiety and related symptoms. Further, therapies widely used to prevent recurrence in survivors, such as tamoxifen, tend to induce or exacerbate certain symptoms. The aim of this preliminary, randomized controlled trial was to evaluate the effects of a yoga intervention on pain and anxiety symptoms in a sample of survivors of early-stage breast cancer

Vadiraja S.H, Rao M.R. et al., (2009) compared the effects of an integrated yoga program with brief supportive therapy on distressful symptoms in breast cancer outpatients undergoing adjuvant radiotherapy. Repeated-measures of ANOVA showed a significant decrease in psychological distress due to pain ($P = 0.01$), fatigue ($P = 0.007$), insomnia ($P = 0.001$), and appetite loss ($P = 0.002$) over time in the yoga group as compared to controls. There was significant improvement in the quality of life ($P = 0.02$) in the yoga group as compared to controls.

Fouladbakhsh. J.M., Stommel. M., et al., (2010) study findings inform oncology nurses on the benefits of integrating self-care Hath Yoga practices in relationship to gender into the symptom management care plan for cancer survivors. Findings reported in this study will help guide future Yoga Therapy practice intervention studies.

Ulger O., Yağli N.V., et al., (2010) investigated the effects of yoga on the quality of life in patients with breast cancer. It was found that patients' quality of life scores after the yoga program were better than scores obtained before the yoga program ($p < 0.05$). After sessions, there was a statistically significant decrease in their pain levels (measuring the reactions of pain) scores ($p < 0.05$). It was found out that the satisfaction score concerning the yoga program was considerably increased after the yoga program ($p < 0.05$)

Kvillemo P., Bränström R., et al., (2011) examined the perceived effects and experiences of mindfulness pain-reduction training as described by patients with cancer participating in a YOGA training program. Most participants expressed a number of perceived positive effects of participating in the YOGA program including increased calm, enhanced sleep quality, more energy, less physical pain, and increased well-being.

Galantino M.L, Greene L., et al., (2011) analyzed the interventions for cancer patients qualitively to indicate that interventions to support the cancer patients with pain. Participants experienced an eight-week yoga intervention as an effective physical activity in the quality of life (QOL) and reduction in cancer related symptoms. This study revealed benefits from alternative forms of exercise such as yoga to provide a structure, which is transferable in other situations. Information, structured physical guidance in yoga postures, support, and feedback are necessary to foster physical activity for cancer patients experiencing pain.

Mishra S.I., Scherer R.W., et al., (2012) concluded that this systematic review indicated that yoga have beneficial effects on HRQoL and certain HRQoL domains including cancer-specific concerns (e.g. breast cancer), body image/self-esteem, emotional well-being, sexuality, sleep disturbance, social functioning, anxiety, fatigue, and pain at varying follow-up periods. The positive results must be interpreted cautiously due to the heterogeneity of YOGA programs tested and measures used to assess HRQoL. (health- related quality of life (HRQoL).

Albrecht. T.A., Taylor. A.G., et al., (2012) examined the state of the science for yoga in the advanced-stage disease subset of the cancer population. Exercise in a variety of intensities and forms of yoga, has many health benefits for people, including those diagnosed with cancer. Research has shown that, for people with cancer (including advanced-stage cancer), yoga can decrease anxiety, stress, and depression while improving levels of pain, fatigue, shortness of breath, constipation, and insomnia.

Galantino M.L, Greene L., Daniels. L., et. al., (2012) suggested that yoga impact various aspects of cognition during and after chemotherapy administration as noted through quantitative measures. Women describe yoga as improving various domains of quality of life through the treatment.

Mustian K.M., Sprod. L.K., Janelsins. M., etal., (2012) Cancer and its treatments produce a myriad of burdensome side effects and significantly impair quality of life (QOL). Exercise reduces side effects and improves QOL for cancer patients during treatment and recovery. .

Zernicke K.A, Campbell T.S., et al., (2013) studied that elevated stress can exacerbate cancer symptom severity, and after completion of primary cancer treatments, many individuals continue to have significant distress. Mindfulness-Based Cancer Recovery (MBCR) is an 8-week group psychosocial intervention consisting of training in mindfulness meditation and yoga designed to mitigate stress, pain, and chronic illness. Efficacy research shows face-to-face MBCR programs have positive benefits for cancer patients.

Section B Studies related to Music therapy for cancer pain

Walworth D, Rumana C.S, et al., (2008) assessed the effects of live music therapy on quality of life indicators and length of stay for persons receiving elective surgical procedures of the brain. Subjects were randomly assigned to either the control group receiving no music intervention (n = 13) or the experimental group receiving pre and postoperative live music therapy sessions (n = 14). This research study indicates that live music therapy using patient-preferred music can be beneficial in improving quality of life.

Pawuk L.G, Schumacher J.E, et al., (2010) convayed through this case study a middle-aged man with lung cancer breathes more easily and reduces his need for pain medication after participating in music-focused relaxation. An 8-year-old boy with cancer writes songs and records a CD for his family.

Shabanloei. R, Golchin. M, et al., (2010) at the Tabriz Hematology and Oncology Center in Iran conducted a study to quantify and evaluate the effectiveness of music therapy interventions on pain and anxiety control for 100 cancer patients undergoing radiation. Participants in the study were randomly assigned to one of two groups: one group listened to music during the procedure, and the other did not. Results showed that participants who listened to music had lower state anxiety and pain levels than those who did not listen to music.

Nguyen T.N, Nilsson S, et al., (2010) conducted a randomized clinical trial was used in 40 patients with leukemia, followed by interviews in 20 of these participants. The participants were randomly assigned to a music group (n = 20) or control group (n = 20). The primary outcome was pain scores and the secondary was heart rate, blood pressure, respiratory rate, and oxygen saturation measured before, during, and after the procedure. The results showed lower pain scores and heart and respiratory rates in the music group. The findings from the interviews confirmed the quantity results through descriptions of a positive experience by the patients, including less pain and fear.

Mahon E.M, Mahon S.M. et al., (2011). Music therapy can be a valuable form of complementary medicine in the oncology setting to decrease patient stress and anxiety, relieve pain and nausea, provide distraction, alleviate depression, and promote the expression of feelings. Music therapists design music sessions based on patients' needs and their intended therapeutic goals.

Li X.M, Yan H, Zhou K.N., et al., (2011) condected a randomized controlled trial at the Surgical Department of Oncology Center. Pain scores were measured at baseline and three post-tests using the General Questionnaire and Chinese version of Short-Form of McGill Pain Questionnaire. The findings of the study provide some evidence that music

therapy has both short- and long-term positive effects on alleviating pain in breast cancer patients following radical mastectomy.

Gallagher L.M. (2011) this paper is designed to provide an introduction to music therapy in the continuum of cancer care. The value and use of music therapy during diagnosis and treatment, palliation, hospice, actively dying, and bereavement have been well documented. The music therapy process will be identified, research will be shared, and the importance and role of music therapy in palliative medicine and supportive cancer care discussed. Music therapy is invaluable throughout the entire cancer treatment process.

Section C Studies related to Yoga and Music therapy for cancer pain

Elkins G, Fisher W, et al., (2010) has described that yoga and music; techniques improved the quality of life and reduced chemotherapy side effects for cancer patients. According to his study yoga has been the union of mind, body and spirit while sound vibrations of the music reduce tension and make the patient emotionally stable. Research funding has enabled many of his interventions for their efficacy, including studies of mind-body interventions in other disciplines.

http:// www.ncbi.nm.nil.gov/pub med, (2013) this study was conducted on 16 new patients receiving radiotherapy was randomly assigned to yoga breathing treatment group and control group with music assistance. The yoga group attended weekly classes to learn four yoga breathing techniques and practiced the techniques during two consecutive cycles of radiation therapy and control group received standard music therapy . Various outcome measures, including fatigue, sleep quality, depression, stress and side effects of treatment were evaluated. The researchers found that the more the yoga breathing resulted in significant improvements as outcome measures. The author concluded that a larger scale of well designed clinical trial are needed to confirm this study.

PART: - 2

CONCEPTUAL FRAMEWORK

The conceptual frame work deals with the inter-related concepts that are assessed together for a study in the abstract, logical structure that enables the researcher to link the findings to nursing body of knowledge. It is developed from the existing theory of interests and proposing relationship among them. The model gives direction for planning research design, data collection and interpretation of findings. **(Polit and Beck 2006).**

The present study aims at describing the effectiveness of yoga therapy and music therapy in reducing pain score level among cancer patients. The framework for the study is based on **"Roy's adaptation model" (1984.).** Roys model focuses on the concept of adaptation of the person . Her concepts of nursing, person, health, and the environment are all interrelated to this central concept. The person continually experiences environmental stimuli. Ultimately, a response is made and adaptation occurs. That response may be either an adaptive or an ineffective response.

Adaptive response promotes integrity and helps the person to achieve the goal of adaptation; that is, the cancer patients achieve survival, improvement in pain, quality of life which transforms their environment. Ineffective response fails to achieve or threatens the goals of adaptation

Nursing has a unique goal to assist the person's adaptation effort by managing the environment. The results attainment of optimal level of wellness by a person.

SYSTEM

The system is the patient diagnosed to have cancer and pain due to the disease or due to its treatment, and the environment is the hospital where the patient is admitted. Both will have interaction with each other.

INPUT

The adaptive system has inputs as behavioral responses that serve as feedback and control process known as coping mechanisms

FOCAL STIMULI

The demographic variables like age, gender, duration of illness, (Internal factors) purpose of admission, practice of exercise, music preference, region that is affected, and the area of residence, (External factors) precipitates the level of pain that affect the quality of life and is reflected as adaptive or mal adaptive response. The level of pain differs due to these internal and external factors.

CONTEXTUAL STUMULI

The contextual stimuli includes lack of information about pain due to cancer or due to its treatment modalities, environment of the hospital its management, alteration in the quality of life process.

RESIDUAL STIMULI

The residual stimuli include the beliefs and attitude related to level of cancer pain.

COPING PROCESS

Acquired coping mechanisms are developed through strategies such as learning. The experience encountered throughout life contributes to customary responses to particular stimuli.

REGULATOR SYSTEM

The maladaptive level of cancer pain alters the regulator subsystem. The regulator subsystem includes the changes in the level of reduction in

pain, improvement in the quality of life, adequate sleep pattern, good food habits, relaxation and stability in the activities of daily living.

COGNATOR SUBSYSTEM

The maladaptive level of pain and cancer treatments alters the cognator subsystem. The changes in the cognator subsystem can be noted in acceptance of disease condition, improvement in daily performance, regular for treatment and standard in quality of living.

After assessing the level of cancer pain in both experimental group I and experimental group II by using the numerical pain rating scale, the yoga therapy and music therapy were carried out as yoga for experimental group I and music for experimental group II. Here the yoga and music interventions were used as coping mechanism.

ADAPTION LEVEL

A person's adaptation level is a constantly changing point, made up of focal, contextual and residual stimuli which represent the person's own standard of range of stimuli to which one can respond with ordinary adaptive responses.

ADAPTATION PROBLEMS

Adaption problems are broad areas of concern related to adaption. This describes the difficulties related to the indicators of positive adaption.

ADAPTIVE MODES

- **Physical Mode**

The adaptive response in physical mode is the level of reduction in pain, improvement in the quality of life, adequate sleep pattern, good food habits, relaxation and stability in the activities of daily living.

- **Self-Concept- Group Identity Mode**

The adaptive response in self concept mode is increased interest in living, decreased fear, irritability and regularity for medical treatment.

- **Role Function Mode**

It refers to improved performance.

- **Interdependence Mode**

The adaptive response in interdependent mode is to live the remaining life comfortably**.**

OUTPUT

The yoga therapy and music therapy may increase the coping pattern which reflects in reduction of pain levels and maintenance of good physiological and psychological status of the level of cancer pain in experimental group I and experimental group II which are assessed by using numerical pain rating scale, thus showing adaptive response. The patients who showed less response means, it refers the maladaptive response.

FEED BACK

The feed back is the process that enables a system to regulate itself and provides information about system's output. Accordingly reduction in pain level after the intervention indicates the effectiveness of yoga or music therapy. If there is no reduction of pain, the condition is reassessed and redirected and the process is continued. Thus, it is a continuous process which takes place in the system.

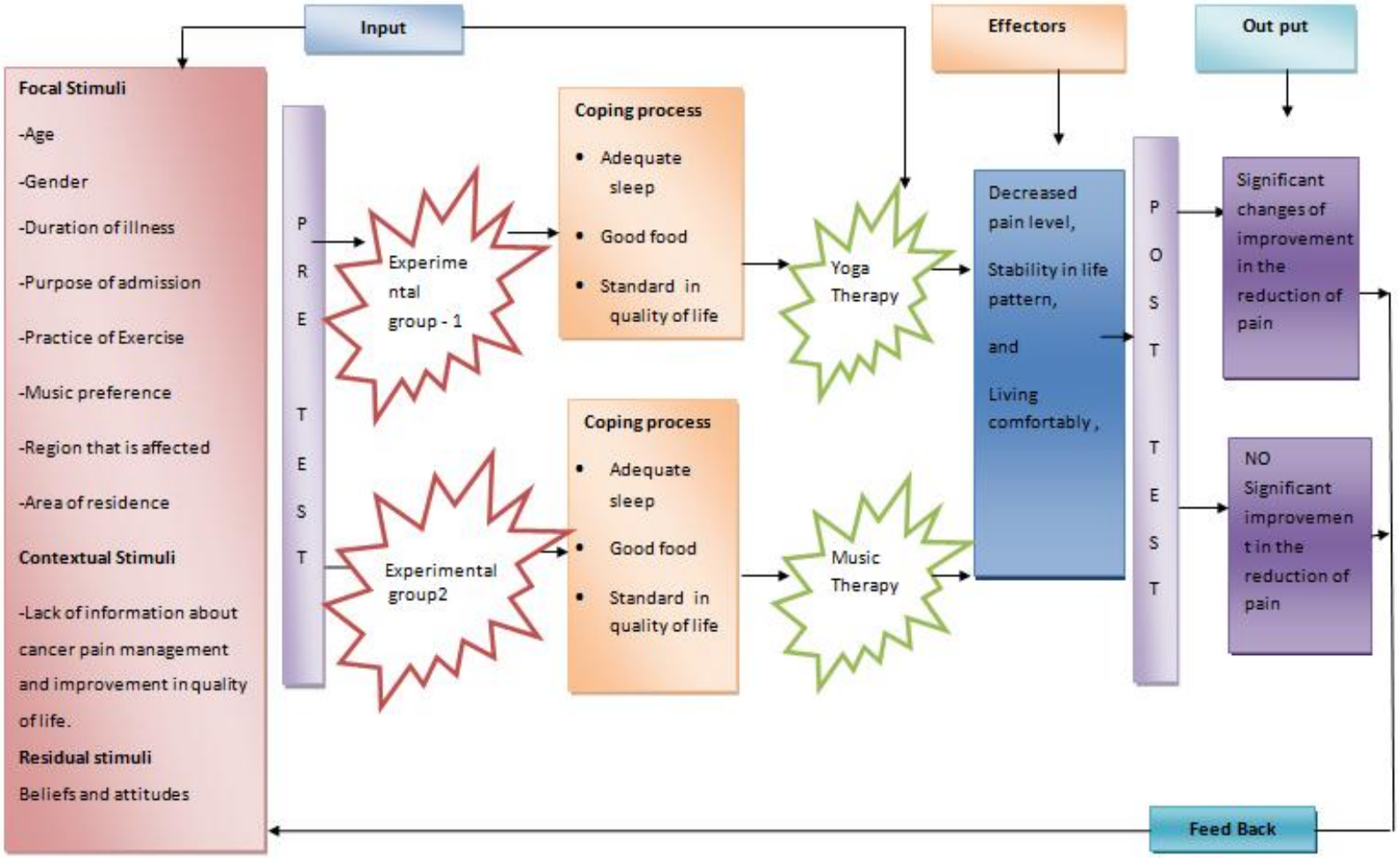


Figure 1 Conceptual Framework Based on modified Roy's Adaptation model – (1984)

CHAPTER III

RESEARCH METHODOLOGY

The methodology of the research study was defined as the way data are gathered in order to answer the research questions or to analyze research problem. Research methodology involved a systematic procedure by which the researcher started from the initial identification of the problem to its final conclusion.

This chapter dealt with a brief description on steps undertaken by the investigator for the study. It included research approach, setting, population, sample, sampling technique, selection of tool, content validity, reliability, pilot study, data collection procedure and plan for data analysis.

Research approach

Evaluative and comparative approach was adopted in this study.

Research design

The research design used in the study was true experimental design- pretest, posttest design.

Groups	Pre-Test	Intervention	Post-Test		
			1	2	3
Experimental Group - I	O1	X1	O2	O3	O4
Experimental Group - II	O1	X2	O2	O3	O4

O1-pre- test assessment of pain among patients with cancer

O2, O3, O4-Post- test assessment of pain among patients with cancer

X1- Intervention (Yoga therapy, i.e. - Experimental Group I).

X2- Intervention (Music therapy, i.e. - Experimental Group II).

Variables

Independent variable: Intervention .Yoga therapy and Music therapy.

Dependent variable: Patients with cancer pain.

Research Setting

Inpatient department of G.Viswanatham Hospital (GVN) a cancer centre in Trichy.

Population

Target population

Patients with cancer who complaints of pain.

Accessible population

The accessible population comprises of all the patients having cancer, pain treatment and admitted in G.V.N. hospital.

Sample

Patients with cancer who has pain**.**

Sample size

Sample size was 60 patients. 30 in experimental group-I, and 30 in experimental group- II

Sampling technique

The sampling technique for study was simple random sampling technique

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

1. Clients who had pain due to cancer (or) pain because of treatment modalities.

2. Clients who were willing to participate.

Exclusion criteria

1. Clients who were terminally ill.

2. Clients who had restrictions in participating.

DESCRIPTION OF THE TOOL

Part I

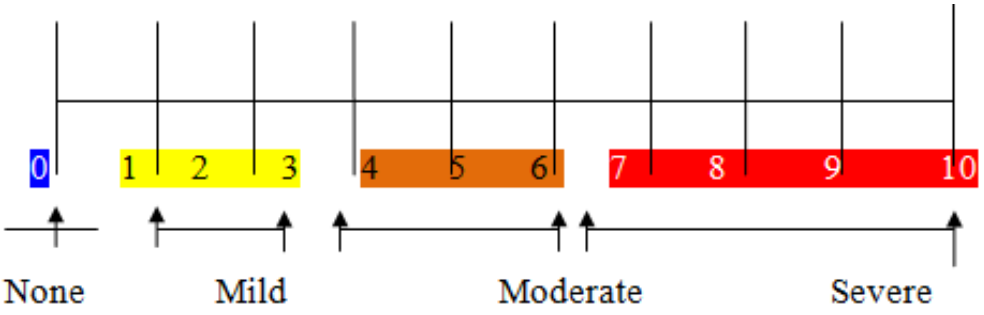
Interview guide consists of questions to collect the demographic data.

Part II

Numerical pain scale to assess the pain level before and after the yoga and music therapy

DAILY ASSESSMENT OF PAIN

Numerical Pain Assessment Scale



Grade

Severity of Pain	Score
None	0
Mild	1 – 3
Moderate	4 – 6
Severe	7 – 10

Validity

The validity of the tools was with the consent of the research team and the guides' direction. For the content validity the research tool was submitted to experts and requested to give their opinion about the content areas and the relevance denting and appropriateness of their items. The experts included were 5 Nursing experts specialized in medical surgical nursing.

Pilot study

Pilot study was conducted at G. Viswanatham Hospital Trichy for the period of 1 week. Permission was obtained from the hospital administrator. The purpose of the study was informed and obtained direction from the persons concerned.The study was found to be feasible.

DATA COLLECTION PROCEDURE

The study was planned to be conduct at G. Viswanatham Hospital (GVN) and the data were collected for a period of given time. Before conducting the study, written permission was obtained from the director of the hospital, the HOD of the Oncology Department and the Nursing Superintendent.

The purpose of the study was explained to the individual subject prior to the study and oral and written consent were obtained. The samples were interviewed by the researcher who met the inclusion criteria were selected by using simple random technique. On the first day pre test was conducted before the therapy was demonstrated.

The demographic variables were assessed by interview by using numerical pain assessment scale. Individualy yoga was demonstrated to experimental group I by the researcher for 30 minutes on the first day and it was supervised on the 3^{rd},5^{th} and on the 7^{th} day. Recorded audio veena instrumental music by Ipode was introduced to experimental group II for 15 minutes and the effect was assessed on the 3^{rd}, 5^{th} and on the 7^{th} day.

Intervention

Yoga which includes a part of hatha yoga exercises such as, Sugasana, Vajrasana, Pranayama, and Yoganidhra were demonstrated to the samples by the researcher it was supervised 7 days for 30 minutes to the

experimental group I. Audio recorded veena instrumental music, by the use of Ipod played to the experimental group II for 7 days for 15 minutes. The yoga and music techniques were done in the presence of the researcher everyday, ie, every morning and evening for 7 consecutive days (yoga for 30 mts, and music for 15 mts).

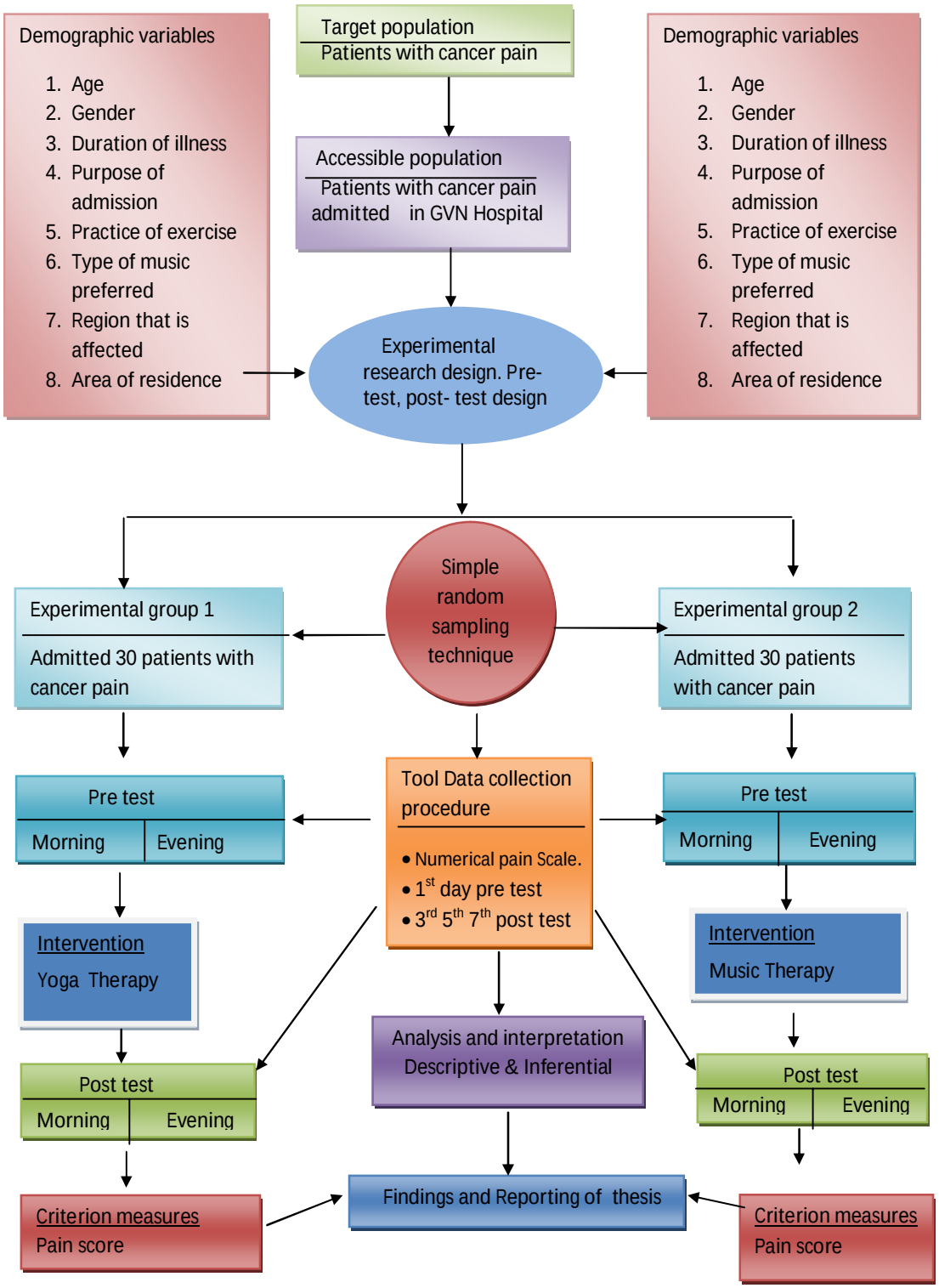
PLAN FOR DATA ANALYSIS

S. No	Data analysis	Methods	Remarks
1	Descriptive statistics	Frequency percentage	To assess the demographic variables of patients with cancer. To assess the pre and post test level of pain score in experimental group I and experimental II among cancer pain.
2	Inferential statistics	Mean, Standard deviation Paired 't' test	To compare the pre and post test level of pain score in experimental group I and experimental II among cancer pain.
3	Inferential statistics	Independent 't' test	To evaluate the effectiveness experimental group I and experimental II among cancer pain.
4		Chi-square test	To find out the association between post test level of pain in experimental group-I and experimental group-II with their selected demographic variables

PROTECTION OF HUMAN RIGHTS

The proposed study was conducted after the approval of the dissertation committee. The written permission was obtained from the Administrator of G. Viswanatham Hospital (GVN) Trichy, as well as from each subject before starting the data collection. Assurance was given to them that confidentiality of each individual would be maintained.

Schematic Representation of Research Methodology



CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of data related to the effectiveness of yoga and music therapy on pain among patients with cancer.

The data collected were grouped, tabulated, organized and analyzed based on the objectives of the study presented below.

ORGANIZATION OF DATA

Section- A

Description of demographic variables among patients with cancer .

Section-B

(a) Pre-test and post- test level of pain among patients with cancer in experimental group-I.

(b) Pre -test and post-test level of pain among patients with cancer in experimental group-II.

Section-C

(a) Comparison of mean pain score and standard deviation of pre-test and post- test among patients with cancer in experimental group -I.

(b) Comparison of mean pain score and standard deviation of pre-test and post- test among patients with cancer in experimental group -II.

(c) Comparison of mean pain score and standard deviation of the post- test among patients with cancer in experimental group-1and experimental group -II.

Section- D

(a) Association of the post-test level of pain among patients with cancer in experimental group -I with their selected demographic variables.

(b) Association of the post- test level of pain among patients with cancer in experimental group-II with their selected demographic variables.

Section: A

Table 1 Frequency and percentage distribution of demographic variables among patients with cancer in the experimental group-I and experimental group-II

(N=60)

S.No	Demographic Variables	Experimental Group-I		Experimental Group-II	
		F	%	F	%
1	**Age in years**				
	20 – 40	6	20.00	7	23.33
	41 - 60	17	56.67	11	36.67
	61 - 80	7	23.33	12	40.00
2	**Gender**				
	Male	7	23.33	9	30.00
	Female	23	76.67	21	70.00
3	**Duration of illness**				
	<1 year	11	36.67	11	36.67
	2 - 3 years	13	43.33	11	36.67
	>3 years	6	20.00	8	26.67
4	**Purpose of admission**				
	Diagnostic	6	20.00	8	26.67
	Chemotherapy	6	20.00	8	26.67
	Radiation	18	60.00	14	46.67
5	**Type of exercise Practiced**				
	Yoga	6	20.00	5	16.67
	Active walking	8	26.67	8	26.67
	None	16	53.33	17	56.67
6	**Type of music preferred**				
	Devotional	8	26.67	8	26.67
	Plain instrumental music	6	20.00	8	26.67
	Film songs	16	53.33	14	46.67
7	**Region that is affected**				
	Chest	6	20.00	5	16.67
	Abdomen	6	20.00	9	30.00
	Pelvic	13	43.33	13	43.33
	Any other	5	16.67	3	10.00
8	**Area of residence**				
	Rural	14	46.67	14	46.67
	Urban	16	53.33	16	53.33

Table 1, reflects the frequency and percentage distribution of demographic variables in the level of pain among the patients with cancer in the experimental group-I and experimental group-II.

- Majority 17(56.67%) of subjects in experimental group –I belonged to the age group of 41-60 years and in experimental group-II 12(40.00%) belonged to the age group of 61 and above.

- Majority 23(76.00%) in experimental group-I and 21(70%) in experimental group II were female.

- Majority 13(43%) of experimental group-I for 2-3 years of duration, and 11 (36.67) in experimental group-II were less than 1year and 2-3years of duration.

- Majority 18(60.00%) of experimental group-I and 14(46.67%) of experimental group-II were admitted for radiation

- Majority 16(53.33%) of experimental group-I and 17(56.67%) of experimental group-II were do not follow exercise.

- Majority 16(53.33%) of experimental group-I and 14(46.67%) of experimental group- II were preferred film songs.

- Majority 13(43.33%) of experimental group-I and 13(43.33%) of experimental group II were affected at the pelvic region.

- Majority 16 (53.33%) of experimental group-I and 16(53.33%) of experimental group-II were belong to urban area.

Figure 2 Percentage distribution of age of patients with cancer

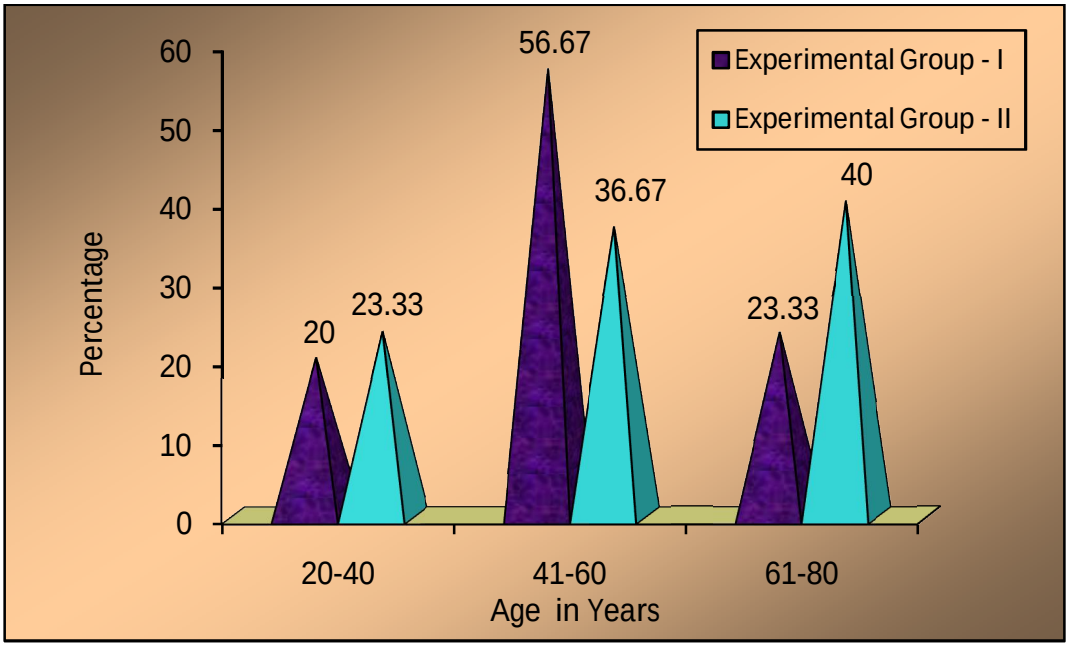


Figure 3 Percentage distribution of gender of patients with cancer

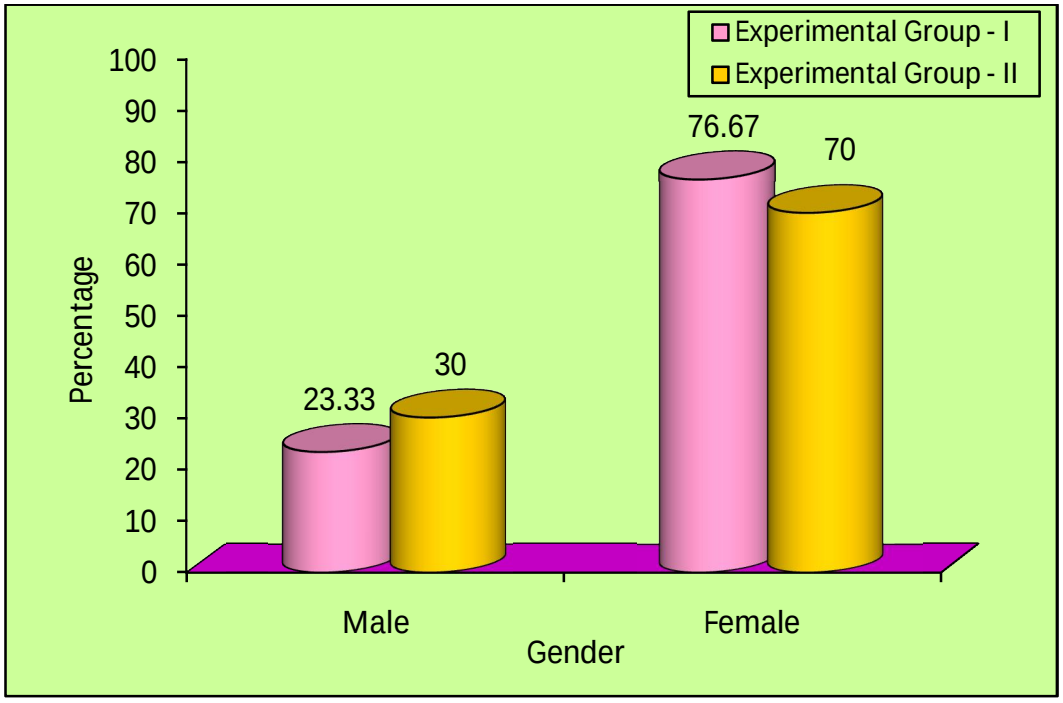


Figure 4 **Percentage distribution of duration of illness of patients with cancer**

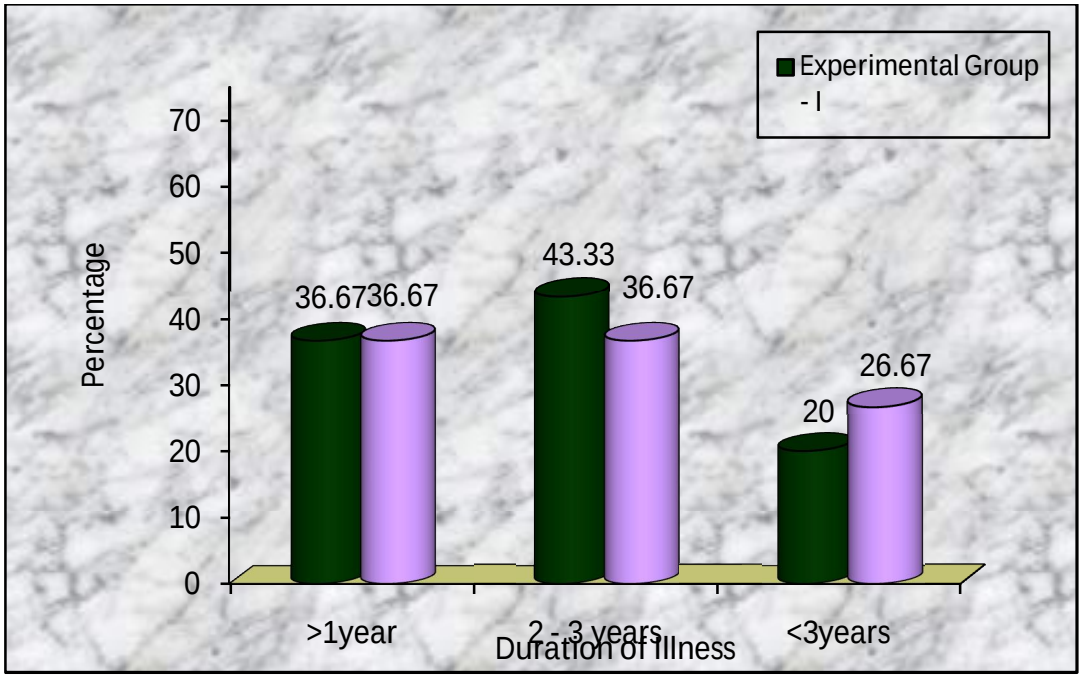


Figure 5 **Percentage distribution of region affected in patients with cancer**

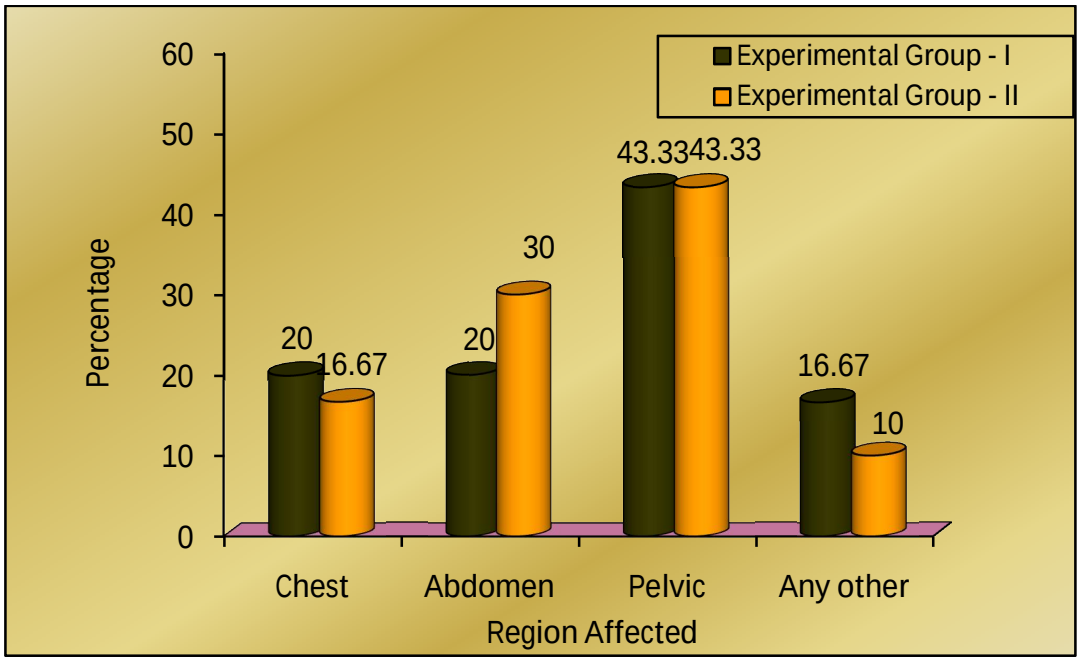
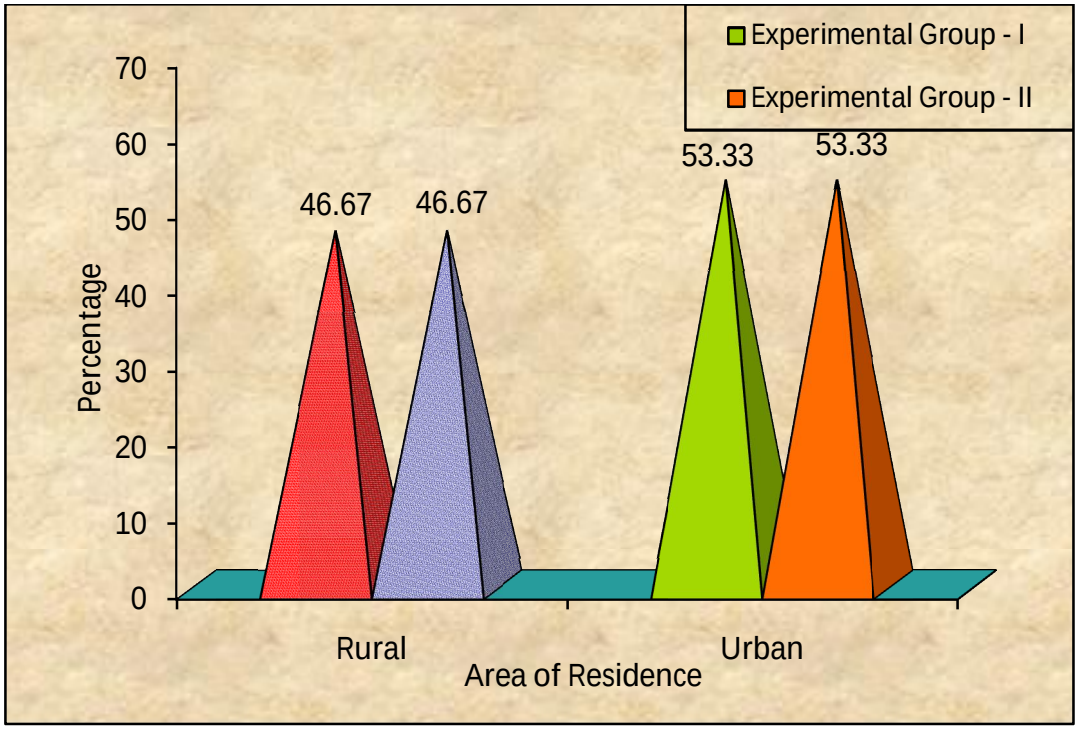


Figure 6 Percentage distribution of area of residence in patients with cancer



Section: B

Table 2 Pre-test and Post - test level of pain among patients with cancer in experimental group-I

(N=30)

Level of Pain	Experimental Group I			
	Pre- test		Post- test	
	F	%	F	%
None	0	0	0	0
Mild	0	0	9	30.0
Moderate	5	16.67	27	70.0
Severe	25	83.33	0	0

Table 2 depicts, the pre-test majority 25 (83.33%) had severe cancer pain, and 5 (16.67%) had moderate cancer pain.

In post-test majority 27 (70.0%) had moderate cancer pain and 9 (30.0%) had mild cancer pain.

Figure 7 Percentage distribution of the pre- test and post- test level of pain among patients with cancer in experimental group-I

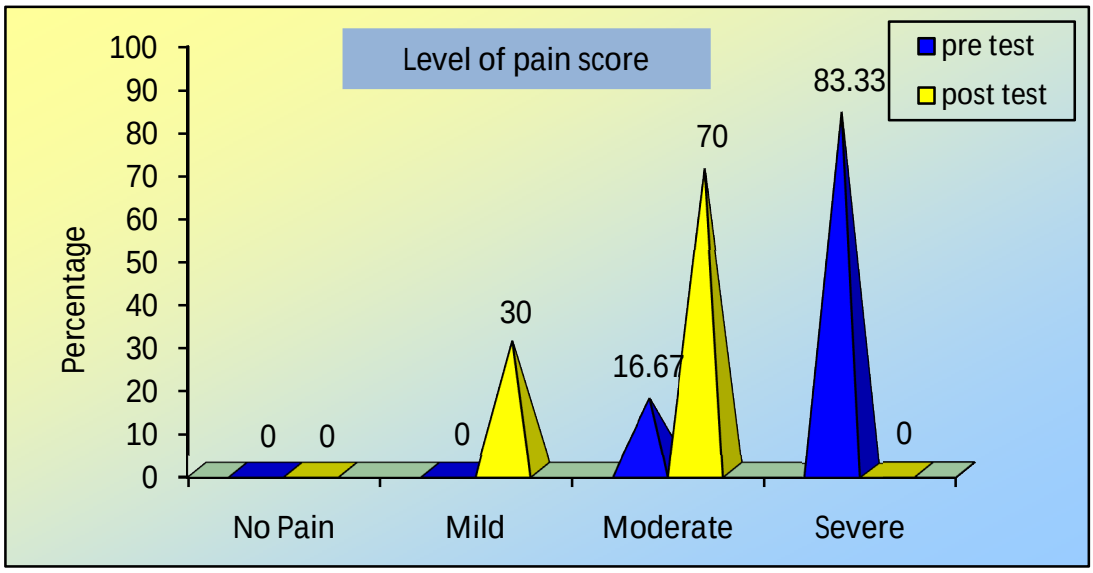


Table 3 Pre-test and post-test level of pain among patients with cancer in experimental group-II

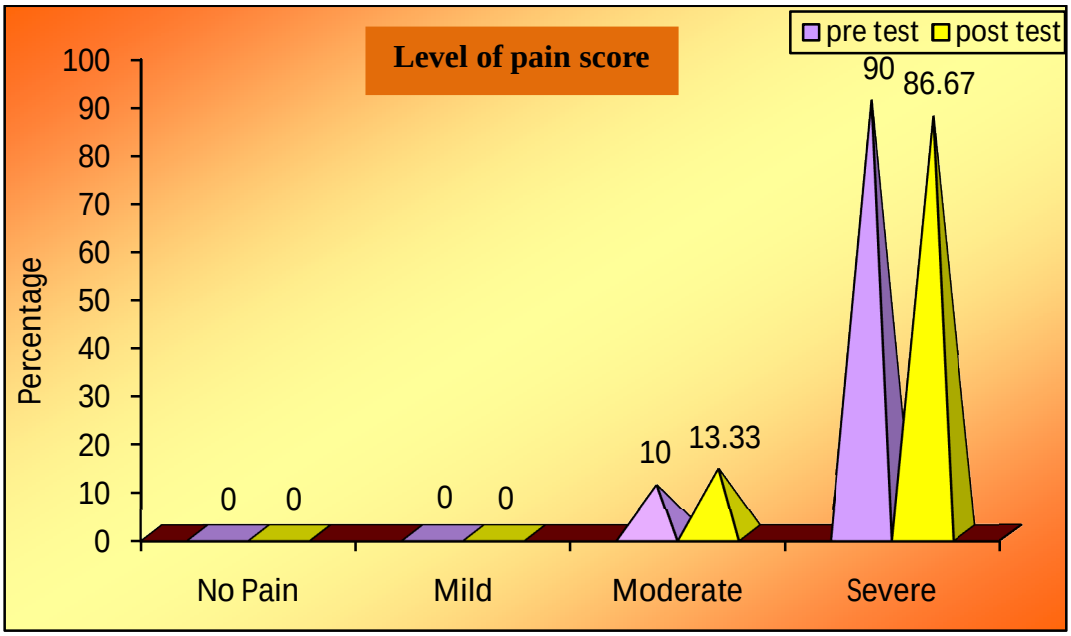
(N=30)

Level of Pain	Experimental Group I			
	Pre- test		Post- test	
	F	%	F	%
None	0	0	0	0
Mild	0	0	9	30.0
Moderate	3	10	4	13.33
Severe	27	90.0	26	86.67

Table 3 represents, the pre-test majority 27 (90.00%) had severe cancer pain and 3 (10.0%) had moderate cancer pain.

In post-test majority 26(86.67) had severe cancer pain, 9 (30.0%) had mild cancer pain, and 4 (13.33%) had moderate cancer pain.

Figure 8 Percentage distribution of the pre-test and post-test level of pain among patients with cancer in experimental group-II



Section: C

Table 4 Comparison of mean pain score and standard deviation of pre-test and post- test among patients with cancer in experimental group -I

(N = 30)

Experimental Group-1	Maximum Score	Mean	S.D	Mean Diff.	't' Value
Pre test	10	7.63	0.96	3.40	t = 22.802*** p = 0.001, S
Post test	10	4.23	1.04		

***p<0.001, S – Significant

Table 4 illustrates, the calculated pre-test cancer pain mean score was 7.63 with standard deviation of 0.96 and the post-test cancer pain mean score was 4.23 with standard deviation of 1.04. The mean difference was 3.40 and calculated 't' value 22.802 was significant at p<0.001 level.

Table 5 Comparison of mean pain score and standard deviation of the pre-test and post- test among patients with cancer in experimental group -II

(N = 30)

Experimental Group-11	Maximum Score	Mean	S.D	Mean Diff.	't' Value
Pre test	10	7.63	0.89	0.20	t = 2.693* p = 0.001, S
Post test	10	7.43	0.93		

*p<0.001, S – Significant

Table 5 proposes, the calculated pre-test cancer pain mean score was 7.63 with standard deviation of 089 and the post-test cancer pain mean score was 7.43 with standard deviation of 0.93. The mean difference was 0.20 and calculated 't' value 2.693 was significant at p<0.001 level.

Table 6 Comparison of mean pain score and standard deviation of the post- test among patients with cancer in experimental group-I and experimental group -II

(N=60)

Pain	Total Score	Mean	S.D	Mean Difference	't' Value
Experimental group- I	10	4.23	1.04	3.2	t=12.531*** p=0.001,S
Experimental group II	10	7.43	0.93		

***p<0.001, S – Significant

Table -6 delineates, in experimental group I level of cancer pain mean score was 4.23 with the standard deviation of 1.04.In experimental group II level of cancer pain mean score was7.43 with standard deviation of 0.93. The mean difference was 3.2 and the calculated't' value 12.531 was significant at p<0.001 level.

Section : D

Table 7 Association of the post-test level of pain score among patients with cancer in experimental group -I with their selected demographic variables

(N = 30)

S.No	Demographic Variables	Mild (1 – 3)		Moderate (4–6)		Chi-Square Value
		F	%	F	%	
1	**Age in years**					
	20 - 40	2	6.7	4	13.3	$\chi^2 = 1.082$ N.S
	41 - 60	6	20.0	11	36.7	
	61 - 80	1	3.3	6	20.0	
2	**Gender**					
	Male	1	3.3	6	20.0	$\chi^2 = 1.074$ N.S
	Female	8	26.7	15	50.0	
3	**Duration of illness**					
	>1 year	3	10.0	8	26.7	$\chi^2 = 1.479$ N.S
	2 - 3 years	3	10.0	10	33.3	
	<3 years	3	10.0	3	10.0	
4	**Purpose of admission**					
	Diagnostic	1	3.3	5	16.7	$\chi^2 = 0.635$ N.S
	Chemotherapy	2	10.0	4	13.3	
	Radiation	6	20.0	12	40.0	
5	**Type of exercise practiced**					
	Yoga	2	6.7	4	13.3	$\chi^2 = 1.627$ N.S
	Active walking	1	3.3	7	23.3	
	None	6	20.0	10	33.3	

S.No	Demographic Variables	Mild (1 – 3)		Moderate (4–6)		Chi-Square Value
		F	%	F	%	
6	**Type of music preferred**					
	Devotional	2	6.7	6	20.0	$\chi^2 = 1.429$ N.S
	Plain instrumental music	3	10.0	3	10.0	
	Film songs	4	13.3	12	40.0	
7	**Region that is affected**					
	Chest	0	0	6	20.0	$\chi^2 = 8.901$ S*
	Abdomen	0	0	6	20.0	
	Pelvic	6	20.0	7	23.3	
	Any other	3	10.0	2	6.7	
8	**Area of residence**					
	Rural	4	13.3	10	33.3	$\chi^2 = 0.026$ N.S
	Urban	5	16.7	11	36.7	

*p<0.001, S – Significant, N.S – Not Significant

Table 7 Signifies the association of the post test in the mild and moderate level of pain among patients with cancer in experimental group –I with their selected demographic variables

Table 7, the findings propose that there was significant association in relation to region that is affected with its significant at p<0.001, and other demographic variables such as age, gender, duration of illness, purpose of admission, type of exercise practiced, type of music preferred and area of residence had no significance of pain among patients with cancer.

Table 8 Association of the post-test level of pain among patients with cancer in experimental group-II with their selected demographic variables

(N =30)

S.No	Demographic Variables	Moderate (4–6)		Severe (7–10)		Chi-Square Value
		F	%	F	%	
1	**Age in years**					
	20 - 40	1	3.3	6	20.0	$\chi^2 = 0.292$ N.S
	41 - 60	1	3.3	10	33.3	
	61 - 80	2	6.7	10	33.3	
2	**Gender**					
	Male	1	3.3	8	26.7	$\chi^2 = 0.055$ N.S
	Female	3	10.0	18	60.0	
3	**Duration of illness**					
	>1 year	1	3.3	10	33.3	$\chi^2 = 1.285$ N.S
	2 - 3 years	1	3.3	10	33.3	
	< 3 years	2	6.7	6	20.0	
4	**Purpose of admission**					
	Diagnostic	1	3.3	7	23.3	$\chi^2 = 0.021$ N.S
	Chemotherapy	1	3.3	7	23.3	
	Radiation	2	6.7	12	40.0	
5	**Type of exercise practiced**					
	Yoga	1	3.3	4	13.3	$\chi^2 = 0.233$ N.S
	Active walking	1	3.3	7	23.3	
	None	2	6.7	15	50.0	
6	**Type of music preferred**					
	Devotional	2	6.7	6	20.0	$\chi^2 = 1.411$ N.S
	Plain instrumental music	1	3.3	7	23.3	
	Film songs	1	3.3	13	43.3	

S.No	Demographic Variables	Moderate (4–6)		Severe (7–10)		Chi-Square Value
		F	%	F	%	
7	**Region that is affected**					
	Chest	0	0	5	16.7	$\chi^2 = 1.893$ N.S
	Abdomen	2	6.7	7	23.3	
	Pelvic	2	6.7	11	36.7	
	Any other	0	0	3	10.0	
8	**Area of residence**					
	Rural	4	13.3	10	33.3	$\chi^2 = 5.275$ S*
	Urban	0	0	16	53.3	

*p<0.001, S – Significant, N.S – Not Significant

Table 8 signifies the association of the mild and moderate level of pain among patients with cancer in experimental group –II, with their selected demographic variables.

In Table 8, the findings propose that there was significant association in relation to area of residence with its significant at p<0.001 level, and other demographic variables such as age, gender, duration of illness, purpose of admission, type of exercise practiced, type of music preferred and region that is affected had no significance among patients with cancer.

CHAPTER – V

DISCUSSION

This discussion chapter deals with the data analyzed based on the objectives and hypothesis of the study. The problem stated is, **"A study to compare the effectiveness of yoga therapy versus music therapy on pain among cancer patients admitted in selected hospital at Trichy".**

First objective was to assess the level of pain among patients with cancer receiving yoga therapy.

The assessment of pre-test level of pain revealed that in experimental group-I 25 (83.33%) had severe pain and 5 (16.67%) had moderate pain. In post-test assessment showed that 27(70.0%) had moderate pain and 9 (30.0%) had mild pain.

Second objective was to assess level of pain among patients with cancer receiving in music therapy.

The assessment of pre-test level of pain revealed that 25 (83.33%) had severe pain, 5 (16.67%) had moderate pain. In post-test level of pain 27(70.0%) had moderate pain and 9 (30.0%) had mild pain.

Third objective was to assess the effectiveness of yoga therapy in reducing pain among patients with cancer.

The calculated mean pain score for the pre- test was 7.63 with standard deviation of 0.96 and post test was 4.23 with standard deviation of 1.04. The mean difference was 3.40and calculated't' value was 22.802 which revealed that there was significant difference between pre and post- test pain score among cancer patients in experimental group- I. The level of significance was $p<0.001$.

Hence the stated hypothesis for the study **H_1**, "There will be a significant reduction in the level of pain among patients with cancer receiving yoga therapy" was accepted.

Fourth objective was to assess the effectiveness of music therapy in reducing pain among patients with cancer.

The calculated mean value for pre- test cancer pain was 7.63 with standard deviation of 0.89and mean value was in post- test cancer pain was 7.43 with standard deviation of 0.93.The mean difference was 0.20. The calculated't' value was 2.693 which indicated that there was significant difference between pre and post test score of pain among patients with cancer in experimental group-II. The level of significance was $p<0.001$.

Hence the stated hypothesis **H_2**, "There will be significant reduction in the level of pain among patients with cancer receiving Music therapy" was accepted.

Fifth objective was to compare the effectiveness of yoga therapy versus music therapy in reducing pain among cancer patients.

The comparison of the effectiveness of pain among patients with cancer in experimental group-I and experimental group II. had obtained the mean score in experimental group-I , 4.23 with the standard deviation of 1.04 and the experimental group-II mean score was 7.43 with the standard deviation was 0.93, mean difference was 3.2 and the calculated 't' value was 12.531 which showed the significance $p<0.001$ level of significance.

Hence the stated hypothesis for the study **H_3**, "Yoga therapy will be more effective than music therapy in reduction of pain among patients with cancer" was accepted.

Sixth objective was to associate post- test level of pain among the patients with cancer receiving yoga therapy with their demographic variables.

The findings propose that there was significant association in relation to region that is affected with its demographic variables. The chi-square value was $\chi^2 = 8.901$, at $p<0.05$, as significance.

Age, gender, duration of illness, purpose of admission, practice of exercise, type of music preferred, and area of residence had no significance

Hence the stated hypothesis for the study **H_4**, "There will be significant association between post-test levels of pain among patients and cancer receiving yoga therapy and their selected demographic variables" was not accepted.

Seventh objective was to associate post- test level of pain among the patients with cancer receiving music therapy with their demographic variables.

The findings propose that there was significant association in relation to area of residence with its demographic variables. The chi-square value was $\chi^2 = 5.275$at $p<0.05$level, as significance.

Age, gender, duration of illness, purpose of admission, type of exercise practiced, type of music preferred, region that is affected, had no significant association.

Hence the stated hypothesis for the study **H_5**, "there will be significant association between post-test levels of pain among patients with cancer receiving music therapy and their selected demographic variables" was not accepted.

CHAPTER VI

SUMMARY, MAJOR FINDINGS, IMPLICATIONS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

This chapter deals with summary, major findings, implications, limitations, recommendations and conclusions of the study. The problem stated was, “A study to compare the effectiveness of yoga therapy versus music therapy on pain among patients with cancer admitted in selected hospital at Trichy”.

SUMMARY OF THE STUDY

The heart of the research project lies in reporting the findings. This is most creative demanding part of the study. The aim of the study was to compare the effectiveness of Yoga Therapy and Music Therapy in reducing pain level among patients with cancer.

The present study was experimental in nature. Independent variable was Yoga and Music therapy, and dependent variable was pain among patients with cancer. The conceptual frame work was based on Roy’s adaption model. The tool used in this study was numerical pain scale to assess the pain. The content validity was established by five experts. The tool was found to be reliable and feasible.

The pilot study was conducted in G. Viswanadham Hospital in Trichy and was found feasible. The main study also was carried out in the same hospital with the number of 60 samples. The samples were recruited through random sampling technique, and written consent was obtained from each sample. Pre test was done to assess the pain and therapy were

demonstrated to respective groups(yoga for 30 mts ,music for 15 mts). Post test value obtained by taking 3rd 5th and 7th day of pain levels, (mean score) is taken. The comparison of the effectiveness of pain score among patients with cancer. The post-test mean pain score of experimental group I was 4.23 with the standard deviation of 1.04 and of experimental group II was7.43 with standard deviation of 0.93. The mean difference was 3.2 and the calculated't' value 12.531 was significant at $p<0.001$ level.

MAJOR FINDINGS OF THE STUDY

- Majority 17(56.67%) of subjects in experimental group –I belonged to the age group of 41-60 years and in experimental group-II 12(40.00%) belonged to the age group of 61 and above.

- Majority 23(76.00%) in experimental group-I and 21(70%) in experimental group II were female.

- Majority 13(43%) of experimental group-I for 2-3 years of duration, and 11 (36.67) in experimental group-II were less than 1year and 2-3years of duration.

- Majority 18(60.00%) of experimental group-I and 14(46.67%) of experimental group-II were admitted for radiation

- Majority 16(53.33%) of experimental group-I and 17(56.67%) of experimental group-II were do not follow exercise.

- Majority 16(53.33%) of experimental group-I and 14(46.67%) of experimental group- II were preferred film songs.

- Majority 13(43.33%) of experimental group-I and 13(43.33%) of experimental group II were affected at the pelvic region.

- Majority 16 (53.33%) of experimental group-I and 16(53.33%) of experimental group-II were belong to urban area.

Findings related to planned intervention

- In pre-test 16.67% had moderate pain and 83.33% had severe pain in experimental group I. In experimental group II, pre test level of pain was 10.00% had moderate pain and 90.00% had severe pain.

- In post- test 70.00% had moderate pain and 30% reported mild in pain experimental group I. In experimental group II, 13.33% had moderate pain and 86.67% had severe pain in post test.

- In experimental group I the pre- test pain mean score was 7 .63 and in post test 4.23 the calculated 't' value 22.802 was significant at $p<0.001$ level.

- In experimental group II the pre- test pain mean score was 7 .63 and in post test 7.43 the calculated 't' value 2.693 was significant at $p<0.001$ level.

- In post-test pain mean score of experimental group I was 4.23 and of experimental group II was 7.43, the calculated 't' value 12.531 was significant at $p<0.001$ level.

There was significant association found between post-test level of pain and region of cancer, where as significant association found between post-test level of pain and area of residence in experimental group II.

IMPLICATIONS

The findings of the study has shown implications in different branches of nursing profession, i.e. nursing practice, nursing education, nursing administration, and nursing research.

Nursing Practice

Oncology clinical practice nurses have a favorable offer to educate, in reducing the level of pain among patients with cancer. The study findings also showed that though the patients with cancer were unaware about yoga and music therapy and its benefits of reducing pain level among them in clinical settings, the health care provider played a vital role in educating these techniques to patients with cancer who suffer from pain.

With emerging health care trends, nurses must know about the body mind therapy and the holistic approach of pain reduction, especially to the critically ill. Nurses need evidenced – based practice in managing the cancer patients who suffer from pain.

Nursing Education

Nurse educators when planning and instructing nursing students should provide opportunities for students to gain the knowledge in teaching students the techniques of pain reduction. The study outlined the significance of short term courses and in service education to equip nurses with current knowledge in body therapies like yoga and music. Nurse educator should check out suitable programme to educate the nurses and the care takers of cancer patients on the importance of healthy and adequate training in yoga and music therapy practice. The nurse educator can make a practical situation

for student nurses in training techniques of yoga and music and to reduce cancer pain.

Nursing Administration

With technology advanced and ever growing challenges of health care needs, the college and hospital administrators, have a responsibility to provide nurses, and nurse educators with continuing opportunities on relaxation techniques like yoga/ music and its benefits, health promoting properties and its availability. This will enable the nurses to update their knowledge and acquire special skills in preparing and use of adequate and healthy pain management strategies. The nurse administrator can conduct programmes in various critically ill areas through which pain can be reduced and help to improve the quality of life of critically ill and the health care providers can use the knowledge in appropriate situations.

Nursing Research

There is a need for intensive and extensive research in this area. It opens a big avenue for innovative methods of creating awareness, development of teaching materials and journals. Disseminate the findings and research through conferences and seminars. Promote the effective utilization of findings in reducing pain among cancer patients and other critically ill patients.

RECOMMENDATIONS

- The same study can be conducted on a large sample for longer duration to generalize the results.

- A similar study can be conducted for various age groups of clients with different causes of pain symptoms.

- The effectiveness of yoga and music may be assessed upon the level of satisfaction of participants.

- Various techniques can be identified in helping cancer patients with different symptoms and enhance their quality of life.

LIMITATONS

- The study period was limited to 5 weeks.

- The study was limited to only the level of pain among cancer patients.

- Yoga and Music service and follow up were beyond the reach of the investigator.

- Collecting the samples in one place and demonstrating the techniques were a laborious task.

CONCLUSION

The purpose of the study was to compare the effectiveness of yoga therapy and music therapy on pain among cancer patients admitted in selected hospital in Trichy. From the above findings it is evident that the yoga therapy was more effective than the music therapy.

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APPENDIX-1

LETTER SEEKING EXPERTS OPINION FOR CONTENT VALIDITYFROM

301211705
M.SC. (NURSING) STUDENT,
THANTHAI ROEVER COLLEGE OF NURSING,
PERAMBALUR.

Respected Madam/ Sir,

Sub: Requisition for content validity of tool.

I am doing M.Sc. (Nursing) II year in Thanthai Roever College of Nursing, Perambalur under The Tamil Nadu Dr. M.G.R. Medical University, Guindy, Chennai. As a partial Fulfillment of my M.Sc. (Nursing) Degree programme, I am conducting a research on, "**Experimental study to compare the effectiveness of yoga therapy verses music therapy on pain among patients with cancer in selected hospital".** A tool has been selected for the research study. I am sending the above for your kind consideration. I will be thankful for your kind consideration. Kindly return it to the undersigned.

Thanking you

Yours sincerely

Enclosure:

1. Certificate of content validity
2. Statement of problem, Objectives, Operational definition, hypothesis
3. Description of the tool and tool for data collection
4. Self addressed envelope.

APPENDIX-2

LIST OF EXPRTS FOR CONTENT VALIDITY OF RESEARCH TOOL

Prof. Dr. S. Rajina Rani; MSc.(N) , PhD,

Principal,& Research Guide, (Dept. of. Medical & Surgical Nursing),

Doctor' s College of Nursing,

Pudhukottai, 622203

Prof. Dr. P.J. Jasmine Parimala; MSc.(N) , PhD,

Principal, (Dept. of. Medical & Surgical Nursing),

C.S.I. Eliza Caldwell College of Nursing,

Idaiyangudi, Tirunelveli Dist.

Prof. Dr. T.S. Ravikumar; MSc.(N) , PhD,

Professor, (Dept. of. Medical & Surgical Nursing),

C.M.C. College of Nursing,

Ida Sadar Road, Vellore Dist.

Miss. D. Thanalakshmi; MSc.(N) ,

Professor, (Dept. of. Medical & Surgical Nursing),

College of Nursing JIPMER,

Gorimedu, Pondichery-6.

Dr .Xavier,MD, DMRT, Oncologist,

G. Viswantham Hospital,

Singarathope, Main Guard Gate, Trichy.

Dr. Sr Jaquline Mary M.D.

Child Jesus Hospital,

Post Box No. 17,Cantonment Road,

Trichy.

APPENDIX-3

EVALUATION CRITERIA FOR CHECK LIST VALIDATION

INTRODUCTION

The expert is requested to go through the following criteria for evaluation. Three columns are given for response and a column for remarks. Kindly pace tick Mark in the appropriate column and give remarks.

Interpretation of column:

Column 1 : Meets the criteria

Column 2 : Partially meets the criteria

Column 3 : Does not meet the criteria

S.No.	Criteria	1	2	3	Remarks
1	Scoring - Adequacy - Clarity - Simplicity				
2	Content -logical Sequence -Clarity -Relevance				
3	Language -Appropriate -Clarity -Simplicity				
4	Practicability -It is easy to score -Does it precisely -Utility				

Signature :

Name :

Designation :

Address :

Any other suggestion

APPENDIX-4

LETTER SEEKING EXPERTS OPINION

Respected Sir/Madam

Kindly review the items n the tool. If you are agree with the criteria, please place a tick in' Relevant' column otherwise place a tick in 'Need modification' column or 'Not relevant' and given your comments in the' Remarks' column.

Part -1 Demographic Data

Sl. No	Relevant	Needs modification	Not relevant	Remarks
1				
2				
3				
4				
5				
6				
7				
8				

CONTENT VALIDITY CERTIFICATE

This is to certify that the tool for **"A study to compare the effectiveness of yoga therapy verses music therapy on pain among patients with cancer in selected hospital".** Prepared by M. Sc nursing student of Thanthai Roever College of Nursing at Perambalur found to be valid and up to date.

Name: Signature of the expert

Place:

Date: Designation and Address

APPENDIX- 5

PERMISSION LETTER TO DO THE RESEARCH AT GVN HOSPITAL, TRICHY

From

301211705

M.Sc(N) II year,

Thanthai Roever College of Nursing, Perambalur.

To

The Managing Director,

GVN Hospital, Trichy.

Through:

The Principal,

Thanthai Roever College of Nursing, Perambalur.

Respected Sir / Madam,

Sub: Request - seeking permission to do the project – regarding.

I am doing M.Sc (N) II year Thanthai Roever College of nursing, perambalur, Under The Tamilnadu, Dr.M.G.R. Medical University Chennai. As a partial fulfillment of my M.Sc.(N) Degree Progrmme, **An Experimental study to compare the effectiveness of yoga therapy Vs Music therapy on pain among patients with cancer in selected hospital.** I request you to kindly allow me to do the project work in your esteemed institution. I would be deeply grateful if you permit me.

Thanking you,

Date :

Place :

Yours faithfully,

APPENDIX - 6

CERTIFICATES

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation work done by 301211705 II year M.Sc Nursing, **A STUDY TO COMPARE THE EFFECTIVENESS OF YOGA THERAPY AND MUSIC THERAPY ON PAIN AMONG CANCER PATIENTS ADMITTED IN SELECTED HOSPITAL IN TRICHY** in Thanthai Roever College of Nursing, Perambalur is edited for English language appropriateness by

Signature

C. JOSEPHIN PATRICIA SUKANYA
ASSISTANT PROFESSOR
DEPT. OF ENGLISH
PERIYAR E.V.R. COLLEGE (AUTO)
TRICHY - 620 023

G.V.N. Hospital
ஜி.வி.என். மருத்துவமனை

Date:30.07.2013

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Reg.No: 301211705 Msc (N) II year student of Thanthai Rover College of Nursing, has successfully completed Project work on "A Study to compare the effectiveness of yoga therapy and music therapy among cancer patients" for the period of 1month at GVN Hospital,46,Singarathope,Trichy from 24.06.2013 To 24.07.2013.

As per our measurements and reporting structure she is hard working and has been excellent during the project work.

We wish her all the success for his future.

Dr.V.Jayapal,M.S.,F.I.C.S.,F.I.M.S.A
Chairman

Dr.V.JAYAPAL,
M.S., F.I.C.S., F.I.M.S.A.,
CHAIRMAN
G. V. N. HOSPITAL
48, Singarathope, Tiruchy-620008.

46, SINGARATHOPE, TRICHY - 620 008. TAMIL NADU, INDIA. Tel : 0431- 2700712, 2700811, 2705979, 2703945
Fax : 0091- 431- 4010000 e-mail : gvnhospital@gmail.com, gvnortho@gmail.com web : www.gvnhospitals.in

Kalai Kaviri College of Fine Arts
(Nationally Accredited with "A" Grade by NAAC)
18, Benwells Road, Tiruchirappalli - 620 001. India.

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Reg.No:301211705, II M.Sc (N), TRCON attended the classes on Basics in Yoga Conducted during the month of may from 01.05.2013 to 31.05.2013 and she has completed the following.

- ஆசனம் ஓர் அறிமுகம்
- ஆசன விதிமுறைகள்
- Therapeutic Yogas and uses in various disease conditions.
- சூரிய வணக்கம்
- Acupressure
- Massages and relaxation exercises

Tiruchirappalli
31.05.2013

(Rev. Fr. L. Anthuvan)
Secretary
KALAI KAVIRI COLLEGE OF FINE ARTS
18, BENWELLS ROAD
TIRUCHIRAPALLI - 620 001

APPENDIX-7

INFORMED CONSENT

I am informed by the researcher about the research topic on “A comparative study to assess the effectiveness of yoga therapy versus music therapy on pain among patients with cancer in selected hospital”.

I have been explained about the nature of the study and I have the freedom to discontinue the study as and when I desire without giving any reasons. I understand this will not affect my treatment in the hospital in any way.

Signature of the participant

Place : Name

Date :

Signature of the investigator:

XgGjy; gbtk;

ngukgY}h jeij Nuhth fyY}hap;y gap;Yk N[hh[dh tp.b. mthfshy eljjggLfpdw Muharrp Nehffjjpidggwwp vdfF njspthf njhptpffggllJ. ,jpy gqNfwgjwF vdfF vej MlNrgidAk ,yiy.

NkYk ,ej tptuqfis ntspaLtjwFk mrrpLtjwFk KO rkkjk mspffpNwd.

ifnaOjJ

ngah :

Njjp :

,lk :

APPENDIX-8

DATA COLLECTION TOOL

SECTION– A DEMOGRAPHIC VARIABLES

Instruction: Kindly furnish the following details by placing a (√) tick mark in appropriate choice.

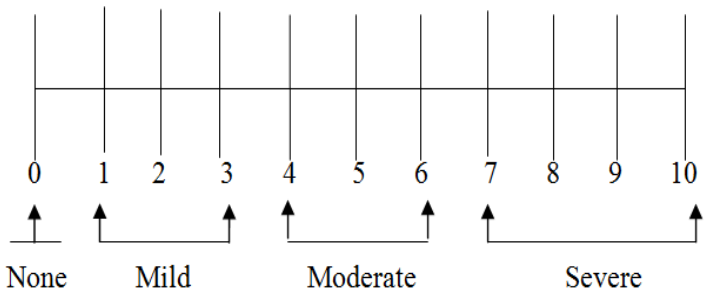
1. Age in years
   a. 20 – 40 ☐
   b. 41 – 60 ☐
   c. 61 – 80 ☐
2. Gender
   a. Male ☐
   b. Female ☐
3. Duration of illness
   a. < 1 year ☐
   b. 2 – 3 years ☐
   c. > 3 years ☐
4. Purpose of admission
   a. Diagnostic ☐
   b. Chemotherapy ☐
   c. Radiation ☐
5. Do you practice any of the following exercises
   a. Yoga ☐
   b. Active walking
   c. None ☐
6. What type of music do you prefer
   a. Devotional ☐
   b. Plain instrumental music ☐
   c. Film songs ☐
7. Region that is affected
   a. Chest ☐
   b. Abdomen ☐
   c. pelvic ☐
   d. Any other ☐
8. Area of Residence
   a. Rural ☐
   b. Urban ☐

tiuaWf;fgggl;l Nehahsp;ad; RaFwpgG ml;ltiz

1. Nehahsp;ad; taJ
   - m. 20 Kjy 40 taJ ☐
   - M. 41 Kjy 60 taJ ☐
   - ,. 61 Kjy 80 taJ ☐
2. ghyp;dk;
   - m. Mz ☐
   - M. ngz ☐
3. GwWNehap;d; fhyep;iy
   - m. xU tUlk ☐
   - M. xdW Kjy %dW tUl fhykhf ☐
   - ,. %dW tUljjpwF Nky ☐
4. cs; Nehahsp;ahf mDkjp;f;fgggljd; fhuzk;
   - m. Nehia fzlwptjwfhf ☐
   - M. Ntjp rpfprir ☐
   - ,. fjphtrR rpfprir ☐
5. jhq;fs; flofhZk; VNjDk; clwgapwrp nrap;fwh;fsh
   - m. Nahfh ☐
   - M. ruhd eil ☐
   - ,. VJk ,yiy ☐
6. jhq;fs; tpUk;tp Nfl;Fk; ,ir
   - m. gfjpgghlyfs ☐
   - M. cgfuzjjhy cUthffpa ,ir (,irfUtpay) ☐
   - ,. jpiuggl ghlyfs ☐
7. GwW Nehapdhy; ghjp;f;fgggl;l ,lk;
   - m. neQRg gFjp ☐
   - M. tapwWg gFjp ☐
   - ,. ,LgG gFjp ☐
   - <. kww cWgGfs (Kis› vYkG› ,ujjk› epzeh) ☐
8. ,Ugpglk; (thoplk;)
   - m. fpuhkk ☐
   - M. efuk ☐

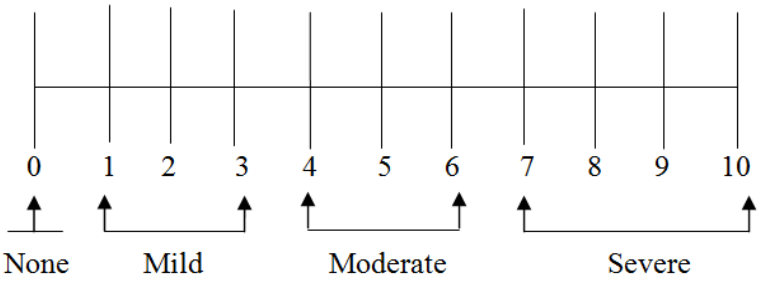
SECTION-B NUMERICAL PAIN ASSESSMENT SCALE

Pretest

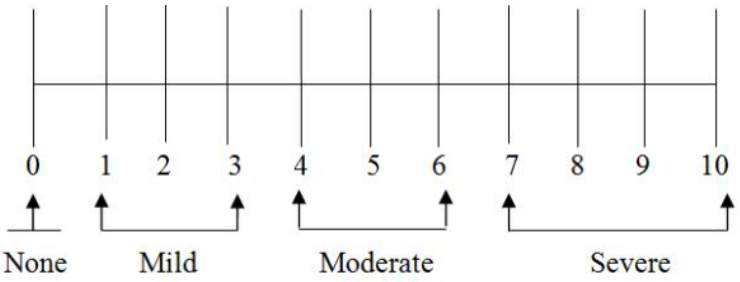


Post - Test

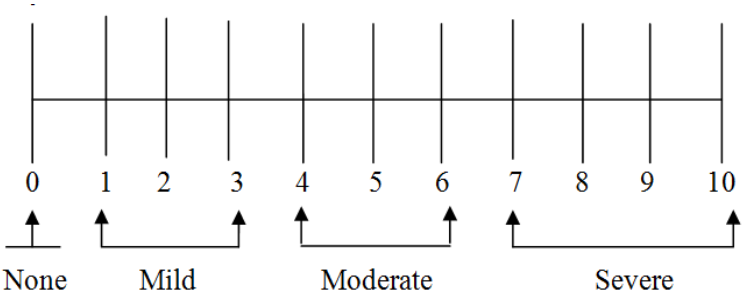
3rd Day



5th Day



7th Day



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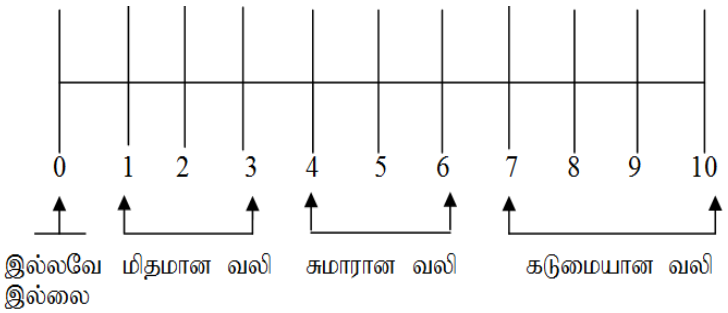
Kjy;ehs;



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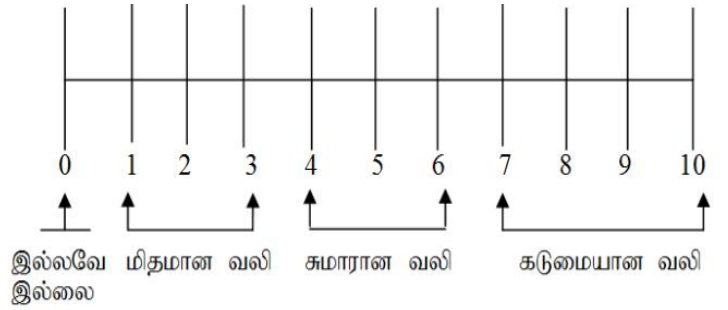

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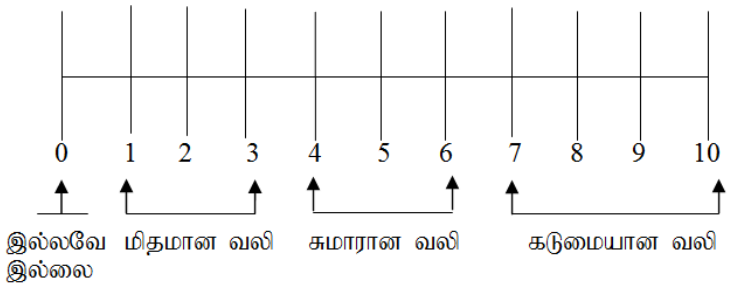

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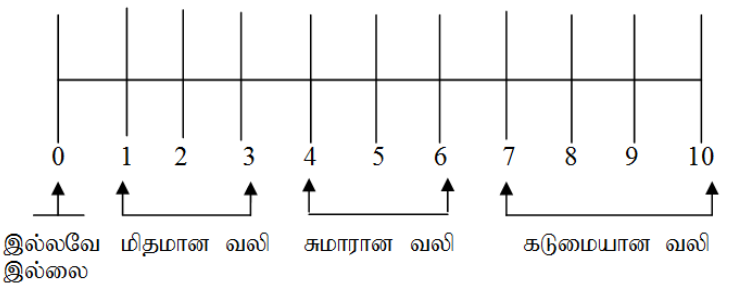
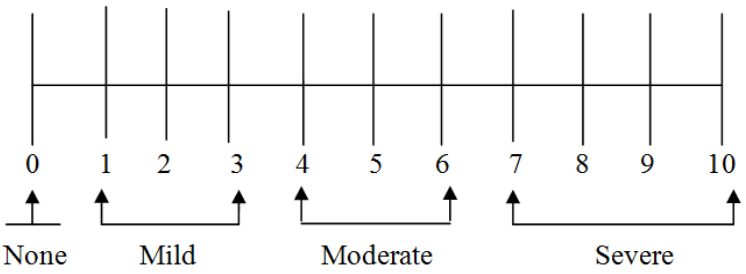


YOGA THERAPHY

Standard Numerical Pain Scale



	Client information		Pre -test Days	Post test Days			Pain score	
S.No	Name of the client	Date of Therapy began	0	3	5	7	Total	Mean value
1								
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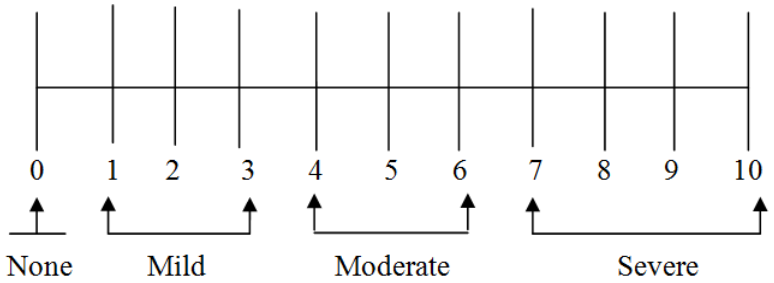
MUSIC THERAPY

Standard Numerical Pain Scale



	Client information		Pre -test Days	Pre-test Days			Pain score	
S.No	Name of the client	Date of Therapy began	0	3	5	7	Total	Mean value
1								
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